AMENDMENTS TO THE CLAIMS

Claims 1-35 (Canceled)

36. (Withdrawn) A method of manufacturing a reflector for use in a radiant energy transducer system, comprising:

forming a substantially rigid substrate having a surface configured to provide a predetermined reflector shape;

mixing an uncalcined zinc-oxide pigment, an alkali metal silicate vehicle-binder and water in a shear mixer, to form a paint mixture;

painting the paint mixture onto the surface of the substrate to form a diffusely reflective coating.

37. (Withdrawn) The method as in claim 36, wherein the painting step forms the diffusely reflective coating to a thickness greater than or equal to 2.75 mils.

38. (Withdrawn) The method as in claim 36, wherein the mixing step mixes the uncalcined zinc-oxide pigment, the alkali metal silicate vehicle-binder and the water in the shear mixer having a spindle speed of 1000-2000 rpm for at least approximately three minutes.

39. (Withdrawn) The method as in claim 36, wherein the mixing step comprises mixing of the uncalcined zinc-oxide pigment and the alkali metal silicate vehicle-binder in a weight ratio in a range between 1.15:1 and 1.41:1.

40. (Withdrawn) The method as in claim 36, wherein the alkali metal silicate vehicle-binder comprises potassium silicate.

41. (Withdrawn) The method as in claim 36, wherein the substrate comprises an aluminum or aluminum alloy.

42. (Withdrawn) The method as in claim 41, further comprising etching the surface of the aluminum or aluminum alloy before the painting step.

43. (Withdrawn) The method as in claim 36, wherein the pigment contains 1/2% by weight of propryonic acid.

44. (Currently Amended) A coating material for application to a substrate of a reflector for a radiant energy transducer system, the coating material exhibiting a diffuse reflective characteristic, a high reflectivity to radiant energy and a high stability when exposed to relatively high temperatures, the coating material comprising:

(a) a pigment comprising a predominant proportion of uncalcined zinc-oxide;

(b) an alkali metal silicate vehicle-binder; and

(c) sufficient water to provide a mixture suitable for application to the substrate of the reflector,

wherein the ratio of weight of the pigment to weight of the vehicle-binder in the coating is between ~~1.15:1~~ 1.15:1 and 1.41:1.

45. (Original) The coating material of claim 44, wherein the alkali metal silicate vehicle-binder consists essentially of potassium silicate.

46. (Original) The coating material of claim 44, wherein said ratio is approximately 1.28:1.

47. (Currently Amended) ~~The coating material of claim 44~~, A coating material for application to a substrate of a reflector for a radiant energy transducer system, the coating material exhibiting a diffuse reflective characteristic, a high reflectivity to radiant energy and a high stability when exposed to relatively high temperatures, the coating material comprising:

(a) a pigment comprising a predominant proportion of uncalcined zinc-oxide;

(b) an alkali metal silicate vehicle-binder; and

(c) sufficient water to provide a mixture suitable for application to the substrate of the reflector,

wherein the ratio of weight of the pigment to weight of the vehicle-binder in the coating is between 1.15:1 and 1.41:1, and

~~wherein~~ the pigment contains 1/2% by weight of ~~propryonic~~ propionic acid.

48. (Currently Amended) A diffusely reflective water soluble paint, comprising:

(a) a pigment consisting essentially of uncalcined zinc-oxide pigment and a ~~relatively small amount of~~ dispersing agent;

(b) a potassium silicate vehicle-binder; and

(c) sufficient water to provide a mixture suitable for application to a substrate,

wherein the ratio of weight of the pigment to weight of the vehicle binder in the water soluble paint is between 1.15:1 and 1.41:1.

49. (Original) The paint of claim 48, wherein said ratio is approximately 1.28:1.

50. (Currently Amended) The paint of claim 48, wherein the dispersing agent comprises ~~propryonic~~ propionic acid, in an amount equal to approximately 1/2% of the binder by weight.